

## **REMARKS**

Claims 1-28 are pending in the present application, were examined and stand rejected. In response, Claims 1, 8, 15, 21 and 22 are amended, no claims are cancelled and no claims are added. Applicant respectfully requests reconsideration of pending Claims 1-28 in view of at least the following remarks. Reconsideration and withdrawal of the rejections of record are requested in view of such amendments and the following discussion.

### **I. Claims Rejected Under 35 U.S.C. §112**

The Examiner has rejected Claims 1-6, 15-21 and 22-28 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, The Examiner rejects the limitation “executable instructions” of Claims 1 and 15 for insufficient antecedent basis.

In response, Applicant amends Claims 1-6, 15-21, and 22-28 to replace each reference to “executable instructions” with --source code instructions--.

Therefore, in view of Applicant’s amendment to Claims 1-6, 15-21 and 22-28, Applicant respectfully requests that the Examiner reconsider and withdraw the 35 U.S.C. §112, second paragraph rejection of Claims 1-6, 15-21 and 22-28.

### **II. Objection to the Specification**

The Examiner rejected the title of the invention for being not descriptive and suggested “System and Method to Reduce the Size of Source Code in a Processing System” as the new title.

The Examiner rejects the specification for the following informalities: “executable instructions/code” should be --source instructions—in the entire specification.

In response, Applicant amends the title of the invention, as well as the Specification to replace each reference to “executable instruction/code” with --source code instructions--.

Therefore, in view of Applicant's amendment to Specification, Applicant respectfully request that the examiner reconsider and withdraw the objection to the Specification.

### **III. Claims Rejected Under 35 U.S.C. §102(b)**

The Examiner has rejected Claims 1-28 under 35 U.S.C. §102(b) as being anticipated by Wulf et al. ("Wulf")

Regarding Claims 1 and 15, Claims 1 and 15 are amended to recite the following claims features which are neither expressly not inherently disclosed by Wulf:

using said dependence graph to identify at least two unifiable instructions of said plurality of source code instructions, within said plurality of fork subgraph structures, said at least two unifiable instructions containing at least one unifiable variable of said plurality of unifiable variables;  
unifying each unifiable variable within said at least two unifiable instructions to generate a corresponding unified instruction for each of the at least two unifiable instructions; and

transferring said at least two unifiable instructions of said plurality of source code instructions from respective times of corresponding fork subgraph structures of said plurality of fork subgraph structures to store a matching unified instruction within a handle corresponding to said fork subgraph structures, if the corresponding unified instructions of said at least two unifiable instructions match. (Emphasis added.)

Wulf is generally directed to an optimizing compilers for producing efficient representations for system programs, which must be highly efficient on a particular computer independent of how fast the computer may be. (See p. 1, lines 3-10.) In contrast with amended Claims 1 and 15, Wulf does not disclose or suggest unifying each unifiable variable within said at least two unifiable instructions to generate a corresponding unified instruction is available for the at least two unifiable instructions, let alone transferring such unifiable instructions to store a matching unified instruction within a handle corresponding to the fork subgraph structures, if the corresponding unified instructions of the at least two unifiable instructions match.

Wulf does disclose code motion optimizations (see, for example, p. 29, lines 21-31.) However, code motion is limited to the detection of congruent expressions, which Wulf defines as follows:

Congruent expressions and (most) *sce*'s are recognized as the program is parsed and the tree representation is built. Two expressions are congruent if: (1) they involve the same operator, (2) they involve the same number of operands, and (3) all of their corresponding operands are congruent. (See p. 35, lines 23-28.) (Emphasis added.)

Accordingly, although the above cited passage of Wulf indicates that Wulf describes code motion optimizations, the algorithm described by Wulf does not consider the unification variables and therefore, is expressly limited to code motion optimizations only for expressions (source code instructions) that syntactically match. Wulf also discusses cross-jumping which is a weak form of omega motion in which gotos are rearranged to share common code sections. However, variable unification, as recited by Claims 1 and 15, is not considered and therefore, neither expressly nor inherently disclosed by Wulf.

According to the Examiner's comments, the above recited features of Claims 1 and 15 prior to amendment, are disclosed by Wulf with reference to page 15, lines 24-26, page 22, lines 6-20, page, 29, lines 15-29 and page 29 lines 29-31. However, the Examiner's characterization of Wulf, as well as cited passages of Wulf, are directed to code optimizations for expressions (source code instructions) that syntactically match (see supra.) Therefore, neither the above sections nor any other disclosure in Wulf teaches or suggests unifying each unifiable variable within at least two unifiable instructions to generate a corresponding unified instruction for each of the at least two unifiable instructions, as recited by amended Claims 1 and 15.

Further, none of the above sections, nor any disclosure of Wulf, either expressly or inherently discloses removing of the said at least two unifiable instructions from respective tines of corresponding fork subgraph structures to store a unified instruction within a handle corresponding to said corresponding fork subgraph structures, if the corresponding unified instructions of said at least two unifiable instructions match, as recited by amended Claims 1 and 15. Conversely, Wulf is limited to code motion for detecting source code instructions

that syntactically match, without variable unification, as recited by amended Claims 1 and 15.

For each of the reasons above, therefore, amended Claims 1 and 15, and all claims which depend on Claims 1 and 15, are patentable over the cited art. Therefore, Applicants respectfully requests that the Examiner reconsider and withdraw the §102(b) rejection of Claims 1-7 and 15-21.

Each of Applicant's other independent claims, include limitations similar to those in amended Claims 1 and 15, as discussed above. Therefore, all Applicant's other independent claims, and all claims which depend on them, are also patentable over the cited art, for similar reasons. Consequently, Applicants respectfully requests that the Examiner reconsider and withdraw the §102(b) rejection of Claims 8-14 and 22-28.

#### DEPENDENT CLAIMS

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicant's silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

### CONCLUSION

In view of the foregoing, it is submitted that Claims 1-28, as amended, patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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Dated: January 10, 2007

By: \_\_\_\_\_



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#### **CERTIFICATE OF MAILING:**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage on the date shown below, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
Annie McNally

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